

TGGCCGCTCTGGCTCTGCTGAGCAGCGTCGCAGAGGCCTCCCTGGGCTCCGCGCCCCGAGCCCTGCCCCCGCGAAGGCCCCCGCCTGTCTGGCGTC
 ACCGGCGAGACCGAGACGACTCGTCGCAGCGTCTCCGGAGGAGACCCGAGGCGCGGGGCGTCGGGACGGGGGGCGCTTCCGGGGGGCGGACAGGACCGCAG 100
 W P L W L C . A A S Q R P P W A P R P A A L P P A K A P R L S W R
 CCCC GCCGCCACCTGCCGGGTAGGTGAGAGGGCGAGGGGGCGGGGCGGGGCTGGCCCGGGACACCGCGCGTGACTGGGTCTCATTCCAGGGGGACGCAC
 GGGGCGGCGCGGTGGACGGCCATCCACTCTCCCGCTCCCCGCCCGCCCGACCGGGCCCTGTGGCGCGCACTGACCCAGAGTAAGGTCCCCCTGCGTG 200
 P P P A T C R V G E R A R G R G G A G P G H R A . L G L I P G G R T
 GGCCCGCTGGTGCACTGGAAGAGCCCCGCGCGCGCGCGCAGCCTTCTCGGCCCGCGCCCCCGCGCCTGCACCCCCATCTGCTCTTCCCCGCGGGGGC
 CCGGGCGACACGTACCTTCTCGGGCCGCGGCGGCGGCGTCCGAAGAGCCGGGCGCGGGGGCGGCGACGTGGGGGTAGACGAGAAGGGGCGCCCCCG 300
 A R W C S G R A R R P P P Q P S R P A P P P P A P P S A L P R G G
 CGGGCGGCGCGGGTGGGGGCCCGGCAGCCGCGCTCGGGCAGCGGGGGCGCGGGGCTGCCGCTGCGCTCGCAGCTGGTGCCGGTGCGCGCGCTCGGCC 400
 GCGGGCGCGCCCCACCCCCGGGCCCGTCCGCGCGAGCCCGTCCGCCCCGCGCCCCGACGGCGGACGCGAGCGTCCGACACGGCCACGCGCGCGAGCCGG
 R A A R A G G P G S R A R A A G A R G C R L R S Q L V P V R A L G
 TGGCCACCGCTCCGACGAGCTGGTGCGTTTCCGCTTCTGCAGCGGCTCCTGCCCGCGCGCGCTCTCCACACGACCTCAGCCTGGCCAGCCTACTGGG 500
 ACCCGGTGGCGAGGCTGCTCGACCACGCAAAGGCGAAGACGTCCGCCAGGACGGCGGCGCGCGAGAGGTGTGCTGGAGTCCGACCGGTCCGATGACCC
 L G H R S D E L V R F R F C S G S C R R A R S P H D L S L A S L L G
 CGCCGGGGCCCTGCGACCGCCCCCGGGTCCCGGCCCGTCCAGCCAGCCCTGCTGCCGACCCACGCGCTACGAAGCGGTCTCCTTCATGGACGTCAACAGC 600
 GCGGCCCCGGGACGCTGGCGGGGGCCGAGGGCCGGGCAGTCCGTCGGGACGACGGCTGGGTGCGCGATGCTTCGCCAGAGGAAGTACCTGCAGTTGTG
 A G A L R P P P G S R P V S Q P C C R P T R Y E A V S F M D V N S
 ACCTGGAGAACCGTGACCGCCTCTCCGCCACCGCCTGCGGCTGCCTGGGCTGAGGGCTCGCTCCAGGGCTTTGCAGACTGGACCCTTACCGGTGG 696
 TGGACCTCTTGACCTGGCGGAGAGGCGGTGGCGGACGCCGACGACCCGACTCCCGAGCGAGGTCCCGAAACGTCTGACCTGGGAATGGCCACC
 T W R T V D R L S A T A C G C L G . G L A P G L C R L D P Y R W

FIGURE 1A

ATGGAACCTGGACTGGAGGCCTCTCCACGCTGTCCACTGCCCTGGCCTAGGCGGCAGCCTGCCCTGTGGCCACCCTGGCCGCTCTGGCTCTGCTGA
 TACCTTGAACCTGAACCTCCGGAGAGGTGCGACAGGGTGACGGGGACCGGATCCGCCGTGGACGGGACACCGGGTGGGACCGGCGAGACCGAGACGACT
 M E L G L G G L S T L S H C P W P R R Q P A L W P T L A A L A L L
 GCAGCGTCGAGAGGCCTCCCTGGGCTCCGCGCCCCGAGCCCTGCCCCCGCGAAGGCCCCCGCCTGTCTGGCGTCCCCCGCGGCCACCTGCCGGG
 CGTCGAGCGTCTCCGGAGGGACCCGAGGCGGGGGCGTGGGACGGGGGGCGCTTCCGGGGGGCGGACAGGACCGCAGGGGGCGGCCGGTGGACGGCCC
 S S V A E A S L G S A P R S P A P R E G P P P V L A S P A G H L P G
 GGGACGCACGGCCCGTGGTGCAGTGAAGAGCCCGGCGGCCGCGCCGCGAGCCTTCTCGGCCCGCGCCCCGCGCCTGCACCCCCATCTGCTCTTCCC
 CCTGCGTGCCGGGCGACACGTACCTTCTCGGGCCGCGCGCGCGCGTGGAAAGAGCCGGGCGCGGGGGCGGCGGACGTGGGGGTAGACGAGAAGGG
 G R T A R W C S G R A R R P P P Q P S R P A P P P P A P P S A L P
 CGCGGGGCGCGCGCGCGGGCTGGGGGCCGGGCGAGCCGCGCTCGGGCAGCGGGGGCGGGGGTGGCGCTGCGCTCGCAGCTGGTGGCGGTGCGCG
 GCGCCCCGCGCGCGCGCGCCGACCCCGGGCCCGTGGGCGCGAGCCCGTGGCCCCGCGCCCCGACGGCGGACGCGAGCGTGGACACGGCCACGCGC
 R G G R A A R A G G P G S R A R A A G A R G C R L R S Q L V P V R
 CGCTGGGCTGGGCCACCGCTCCGACGAGCTGGTGCCTTCCGCTTCTGCAGCGGCTCCTGCCGCGCGCGCGCTCTCCACACGACCTCAGCCTGGCCAG
 GCGAGCCGGACCCGGTGGCGAGGCTGCTCGACCACGCAAAGGCGAAGACGTGCGCGAGGACGGCGGCGCGCGAGAGGTGTGCTGGAGTGGACCGGTC
 A L G L G H R S D E L V R F R F C S G S C R R A R S P H D L S L A S
 CCTACTGGGCGCCGGGGCCCTGCGACCGCCCCGGGCTCCCGGCCCGTCCAGCCAGCCCTGCTGCCGACCCACGCGCTACGAAGCGGTCTCCTTCATGGAC
 GGATGACCCGCGGCCCGGGACGCTGGCGGGGGCCGAGGGCCGGGCAGTCGGTGGGACGACGGCTGGGTGCGGATGCTTCGCCAGAGGAAGTACCTG
 L L G A G A L R P P P G S R P V S Q P C C R P T R Y E A V S F M D
 GTCAACAGCACCTGGAGAACCGTGGACCGCCTCTCCGCCACCGCCTGCGGCTGCCTGGGCTGA
 CAGTTGTCGTGGACCTCTTGGACCTGGCGGAGAGGCGGTGGCGGACGCCGACGGACCCGACT
 V N S T W R T V D R L S A T A C G C L G .

FIGURE 1B

ATGGAAGTGGGACTTGAGAGCCTACTGCATTGTCCCACTGCCTCCGGCCTAGGTGGCAGTCAGCCTGGTGGCCAACCCTAGCTGTTCTAGCCCTGCTGA
 TACCTTGACCCTGAACGTCTCGGATGACGTAACAGGGTGACGGAGGCCGATCCACCGTCAGTCGGACCACCGGTTGGGATCGACAAGATCGGGACGACT
 M E L G L A E P T A L S H C L R P R W Q S A W W P T L A V L A L L
 GCTGCGTCACAGAAGCTTCCCTGGACCCAATGTCCCGCAGCCCCGCCGCTCGCGACGGTCCCTCACCAGGTCTTGGCGCCCCCACGGACCACCTGCCTGG
 CGACGCAGTGTCTTGAAGGGACCTGGGTTACAGGGCGTCGGGGCGGCGAGCGCTGCCAGGGAGTGGCCAGAACC CGGGGGGTGCCTGGTGGACGGACC
 S C V T E A S L D P M S R S P A A R D G P S P V L A P P T D H L P G
 GGGACACACTGCGCATTTGTGCAGCGAAAGAACCCTGCGACCCCCGCTCAGTCTCCTCAGCCCCGACCCCCGCCGCTGGTCCCGCGCTCCAGTCTCCT
 CCTGTGTGACGCGTAAACACGTGCTTTCTTGGGACGCTGGGGCGGAGTCAGAGGAGTCGGGCGTGGGGCGGGCGGACCAGGGCGCGAGGTGAGAGGA
 G H T A H L C S E R T L R P P P Q S P Q P A P P P P G P A L Q S P
 CCCGCTGCGCTCCGCGGGGCACGCGGGCGCGTGCAGGAACCCGGAGCAGCCGCGCACGGACCACAGATGCGCGCGGCTGCCGCTGCGCTCGCAGCTGG
 GGGCGACGCGAGGCGCCCCGTGCGCGCCGCGCACGTCTTGGGCTCGTCGGCGCTGCCTGGTGTCTACGCGCGCCGACGGCGGACGCGAGCGTCGACC
 P A A L R G A R A A R A G T R S S R A R T T D A R G C R L R S Q L
 TGGCGGTGAGTGGCTCGGCTAGGCCACAGCTCCGACGAGCTGATACGTTTCCGCTTCTGCAGCGGCTCGTGCCGCCGAGCACGCTCCCAGCACGATCT
 ACGGCACTCACGCGAGCCGGATCCGGTGTGAGGCTGCTCGACTATGCAAGGCGAAGACGTGCGCGAGCACGGCGGCTCGTGCGAGGGTCGTGCTAGA
 P V S A L G L G H S S D E L I R F R F C S G S C R R A R S Q H D L
 TGGTGGCCAGCCTACTGGGCGCTGGGGCCCTACGGTGCCTCCCGGGTCCCGGCCGATCAGCCAGCCCTGCTGCCGGCCCACTCGCTATGAGGCCGTC
 TCAGACCGGTGGATGACCCGCGACCCCGGGATGCCAGCGGAGGGCCAGGGCCGGCTAGTCGGTGGGACGACGGCCGGGTGAGCGATACTCCGGCAG
 S L A S L L G A G A L R S P P G S R P I S Q P C C R P T R Y E A V
 CCTTCATGGACGTGAACAGCACCTGGAGGACCGTGGACCACCTCTCCGCCACTGCCTGCGGCTGTCTGGGCTGA
 GGAAGTACCTGCACTTGTCTGGACCTCCTGGCACCTGGTGGAGAGGCGGTGACGGACGCCGACAGACCCGACT
 S F M D V N S T W R T V D H L S A T A C G C L G

FIGURE 1C

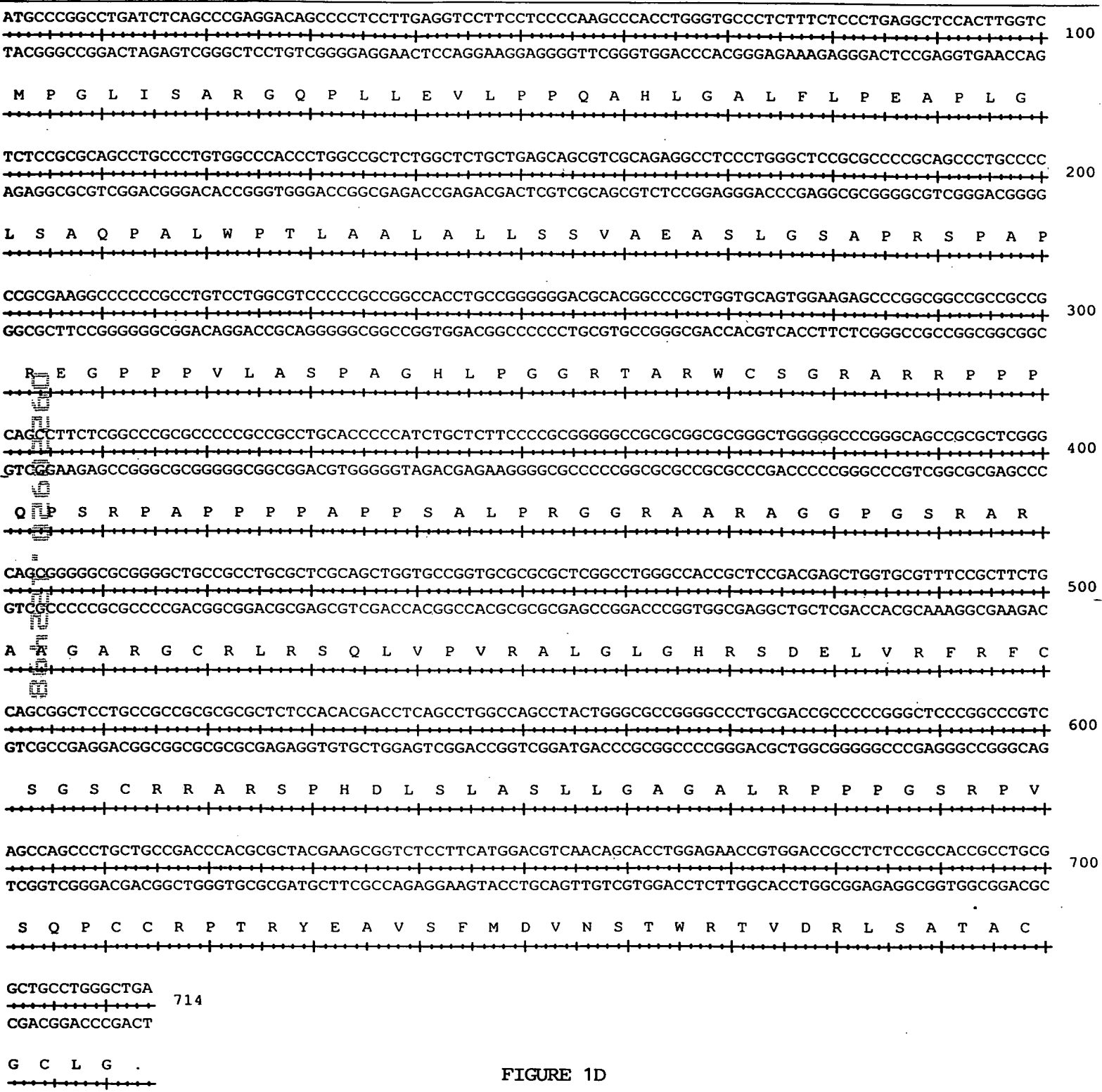


FIGURE 1D

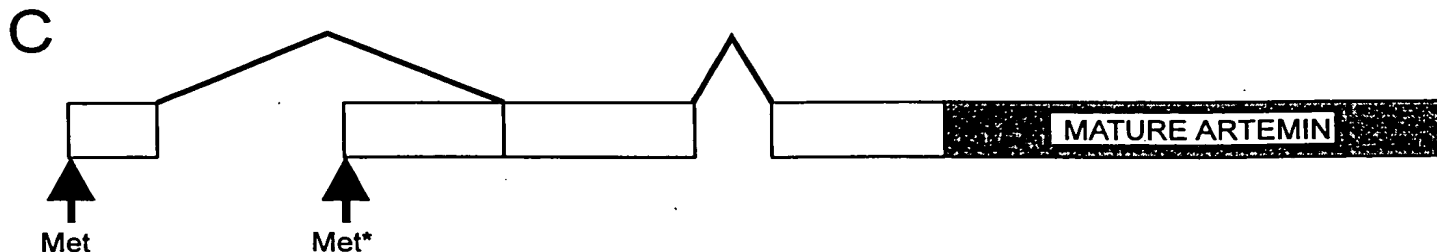
[illegible][illegible]

FIGURE 2

09020210400

GCTGGGGCCCGGAGCCGCCTCGGGCAGCGGGGGCGGGGGTGCAGCTGGTGCCGGCTCGGCCCTGGGCCACCGGT

CGACCCC GG G C C C T G C G C C G A G C C C G T C G C C C C C G A C G G C G G A C C G G A C C C C G G T G G C G A

A G G P G S R A R A A G A R G C R L R S Q L V P V R A L G L G H R

CCGACGAGCTGGTGCCTTCCGGCTTCTGCAGCGGCTCCTGCGCGCGGCGGCTTCCACACGACCTCAGCCTGGCCAGCCTACTGGCGCGCGGGCCCT
GGCTGCTCGACCAAGCGGAAGACGTCGCCGAGGACGGCGCGCGAGAGGTGTGCTGGAGTCGGACCGGTGGATGACCCGCGCGCCCGGGA

S D E L V R F R F C S G S C R R A R S P H D L S L A S L L G A G A L

GGACGCCCCGGGCTCCCGGGCCGTCAGCCAGCCCTGCTGCCGACCCACGCCGTACGAAGCGGTCTCCTTCATGGACGTCACACAGCACCTGGAGAACC
CGTGGCGGGGGCCGAGGGCCGGCAGTCGGTCGGACGACGGCTGGGTGCCGCGATGCTTCGCCAGAGGAAGTACCTGCAGTTGCTGTGGACCTCTTG

R P P P G S R P P V S Q P C C R P T R Y E A V S F M D V N S T W R T

GTGACCGCCTCTCCGCCACCGCCTGCGGCTGCCTGGGCTGA
CACCTGGCGGAGAGCGCGGTGGCGGACGCCGACGGACCCGACT

V D R L S A T A C G C L G .

FIGURE 3A

109

202

300

351

FIGURE 3B

108

2.00

300

400

T A C G C L G .

FIGURE 3C

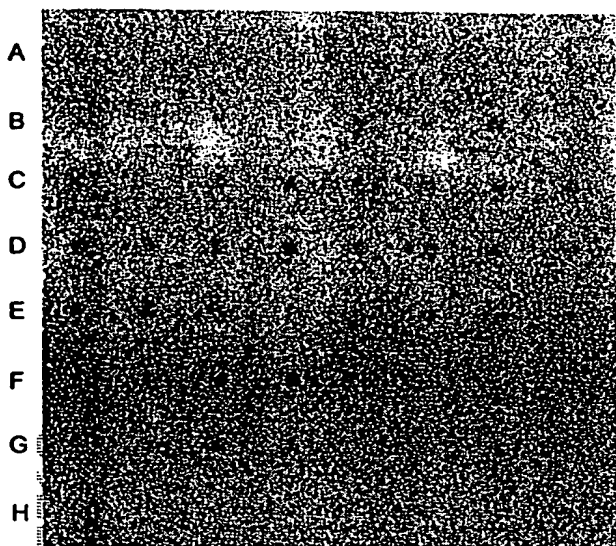
1	C	V	L	T	A	I	H	L	N	V	T	D	L	G	L	G	Y	E	T	K	E	E	L	I	F	R	Y	C	S	G	S	C	D	-	A	A	E	T	Y	D	K	I	L	K	N	L	S	R	N	hGDNF
1	C	G	L	R	E	L	E	V	R	V	S	E	L	G	L	G	Y	A	S	D	E	T	V	L	F	R	Y	C	A	G	A	C	E	A	A	R	V	-	Y	D	L	G	L	R	Q	R	hNTN			
1	C	Q	L	W	S	L	T	L	S	V	A	E	L	G	L	G	Y	A	S	E	E	K	V	I	F	R	Y	C	A	G	S	C	P	R	G	A	R	T	Q	H	G	L	A	L	R	Q	G	hPSP		
1	C	R	L	R	S	Q	L	V	P	V	R	A	L	G	L	G	H	R	S	D	E	L	V	R	F	R	F	C	S	G	S	C	R	R	-	A	R	S	P	H	D	L	S	L	A	G	A	hART		

50	R	R	L	-	-	-	-	V	S	D	K	V	G	Q	A	C	C	R	P	I	A	F	D	D	L	S	F	L	D	D	N	L	V	Y	H	I	L	R	K	H	S	A	K	R	C	G	C	hGDNF	
50	R	R	L	R	-	-	-	-	E	R	V	R	A	Q	P	C	C	R	P	T	A	Y	E	D	E	V	S	F	L	D	A	H	S	R	Y	H	T	V	H	E	L	S	A	R	E	C	A	C	hNTN
51	G	-	-	-	-	-	-	-	-	R	A	H	G	G	P	C	C	R	P	T	R	Y	T	D	-	V	A	F	L	D	D	R	H	R	W	Q	R	L	P	Q	L	S	A	A	A	C	G	C	hPSP
50	G	A	L	R	P	P	P	G	S	R	P	V	S	Q	P	C	C	R	P	T	R	Y	E	A	-	V	S	F	M	D	V	N	S	T	W	R	T	V	D	R	L	S	A	T	A	C	G	C	hART

FIGURE 4

5A

1 2 3 4 5 6 7 8



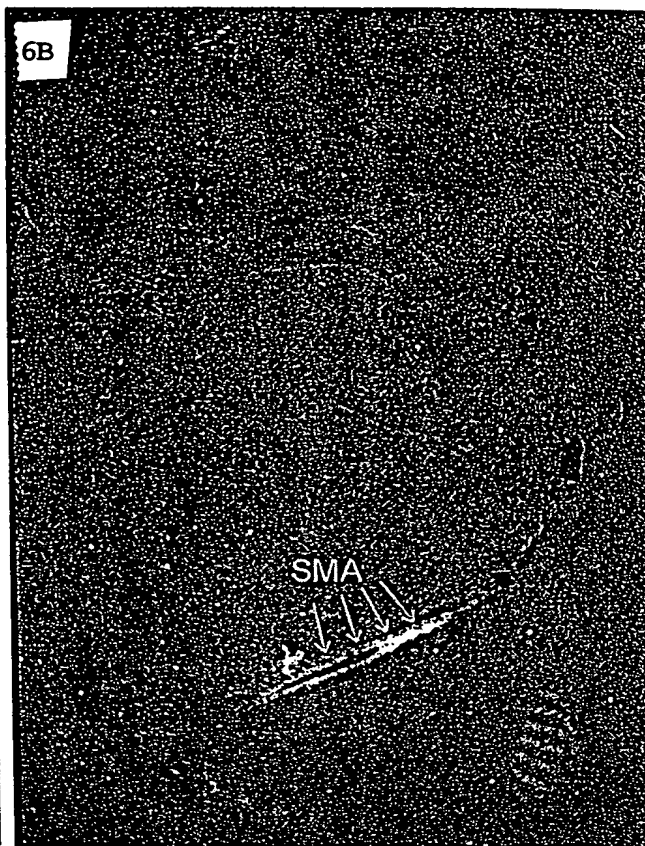
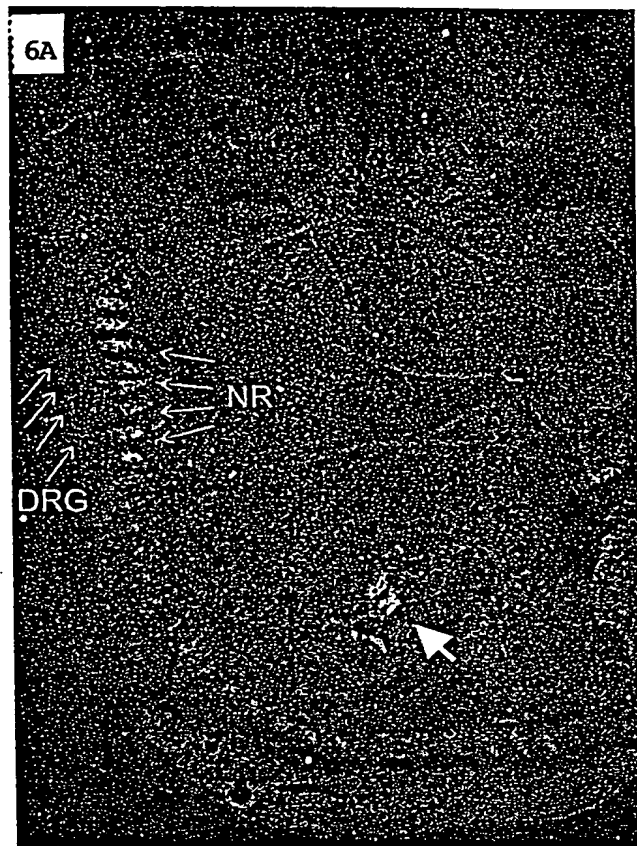
5B

	1	2	3	4	5	6	7	8
A	whole brain	amygdala	caudate nucleus	cerebellum	cerebral cortex	frontal lobe	hippocampus	medulla oblongata
B	occipital lobe	putamen	substantia nigra	temporal lobe	thalamus	sub-thalamic nucleus	spinal cord	
C	heart	aorta	skeletal muscle	colon	bladder	uterus	prostate	stomach
D	testis	ovary	pancreas	pituitary gland	adrenal gland	thyroid gland	salivary gland	mammary gland
E	kidney	liver	small intestine	spleen	thymus	peripheral leukocyte	lymph node	bone marrow
F	appendix	lung	trachea	placenta				
G	fetal brain	fetal heart	fetal kidney	fetal liver	fetal spleen	fetal thymus	fetal lung	
H	yeast total RNA 100 ng	yeast tRNA 100 ng	<i>E. coli</i> rRNA 100 ng	<i>E. coli</i> DNA 100 ng	Poly r(A) 100 ng	human C ₁ 1 DNA 100 ng	human DNA 100 ng	human DNA 500 ng

FIGURE 5

0920-122498

86422T 02602260



6C

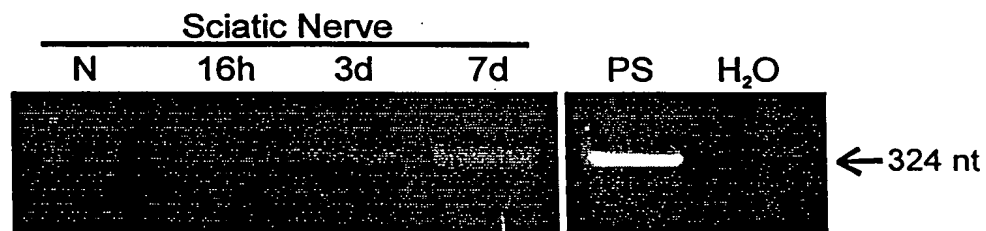


FIGURE 6

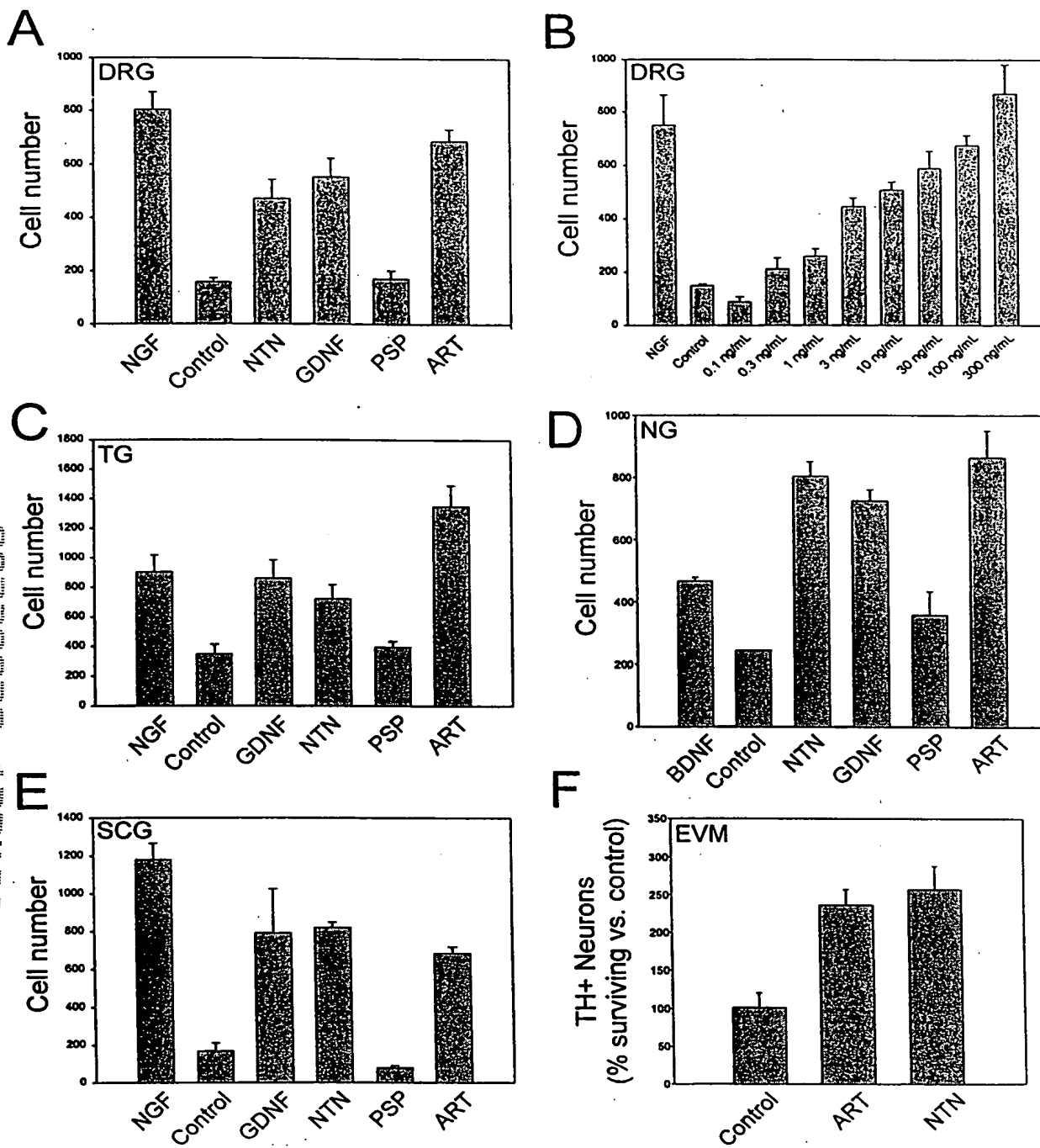


FIGURE 7

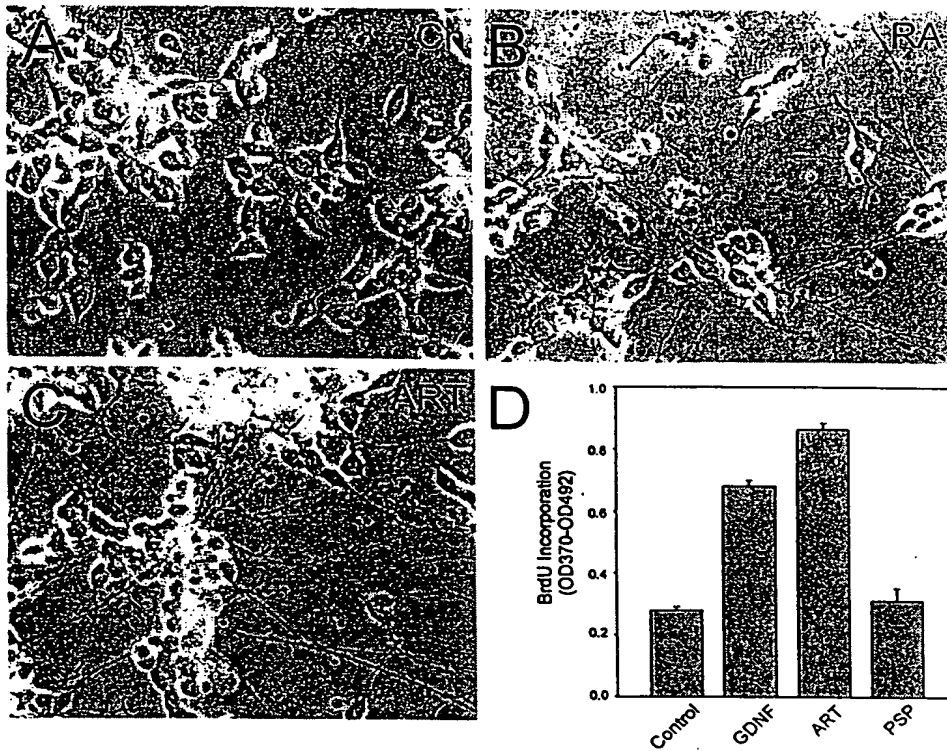


FIGURE 8

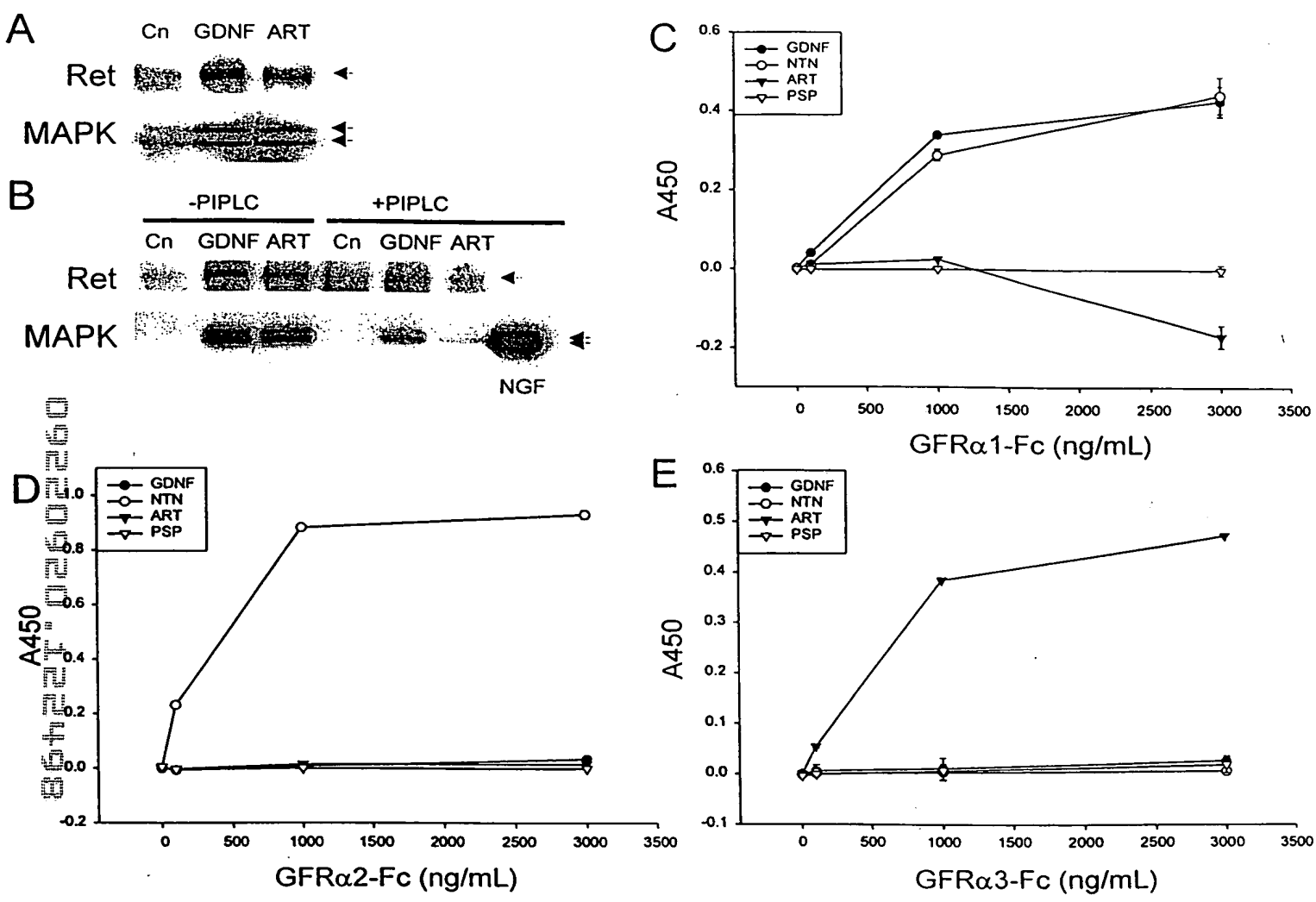


FIGURE 9

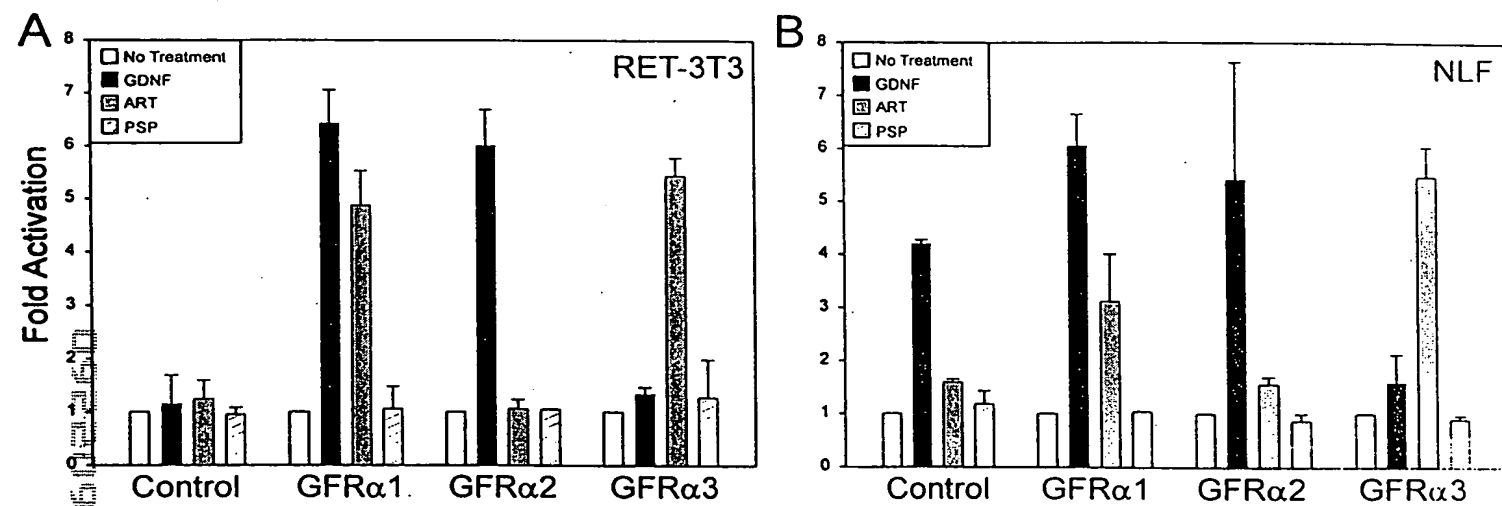


FIGURE 10

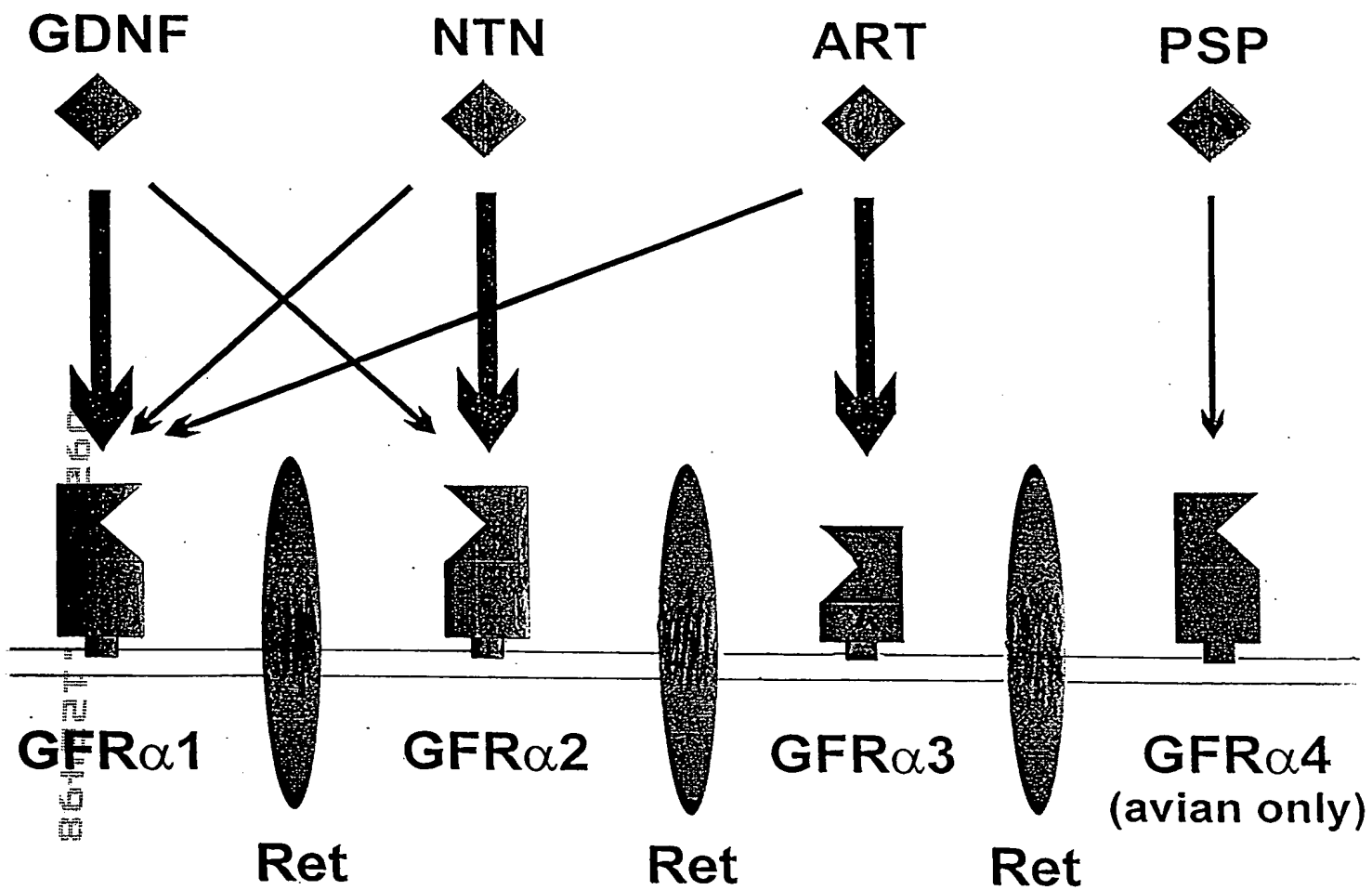


FIGURE 11

hGFR α 3 M V R P L N P R P L P P V V L M L L L L L P P S P L P L A A G D P L P T E S R L M
 mGFR α 3 M G L S W S P R P - - P L L M I L L L V L S L W - L P L G A G N S L A T E N R F V

hGFR α 3 N S C L Q A R R K C Q A D P T C S A A Y H H L D S C T S S I S T P L P S E E P S V
 mGFR α 3 N S C T Q A R K K C E A N P A C K A A Y Q H L G S C T S S L S R P L P L E E S A M

hGFR α 3 P A D C L E A A Q Q L R N S S L I G C M C H R R M K N Q V A C L D I Y W T V H R A
 mGFR α 3 S A D C L E A A E Q L R N S S L I D C R C H R R M K H Q A T C L D I Y W T V H P A

hGFR α 3 R S L G N Y E L D V S P Y E D T V T S K P W K M N L S K L N M L K P D S D L C L K
 mGFR α 3 R S L G D Y E L D V S P Y E D T V T S K P W K M N L S K L N M L K P D S D L C L K

hGFR α 3 F A M L C T L N D K C D R L R K A Y G E A C S G P H C Q R H V C L R Q L L T F F E
 mGFR α 3 F A M L C T L H D K C D R L R K A Y G E A C S G I R C Q R H L C L A Q L R S F F E

hGFR α 3 K A A E P H A Q G L L L C P C A P N D R G C G E R R R N T I A P N C A L P P V A P
 mGFR α 3 K A A E S H A Q G L L L C P C A P E D A G C G E R R R N T I A P S C A L P S V T P

hGFR α 3 N C L E L R R L C F S D P L C R S R L V D F Q T H C H P M D I L G T C A T E Q S R
 mGFR α 3 N C L D L R S F C R A D P L C R S R L M D F Q T H C H P M D I L G T C A T E Q S R

hGFR α 3 C L R A Y L G L I G T A M T P N F V S N V N T S V A L S C T C R G S G N L Q E E C
 mGFR α 3 C L R A Y L G L I G T A M T P N F I S K V N T T V A L S C T C R G S G N L Q D E C

hGFR α 3 E M L E G F F S H N P C L T E A I A A K M R F H S Q L F S Q D W P H P T F A V M A
 mGFR α 3 E Q L E R S F S Q N P C L V E A I A A K M R F H R Q L F S Q D W A D S T F S V V Q

hGFR α 3 H Q N E N P A V R P Q P W V P S L F S C T L P L L L L L S L W
 mGFR α 3 Q Q N S N P A L R L Q P R L P L L S F S L L P L L L L L O T L W

FIGURE 12

ATGGTGGCCCCCTGAACCCGGACCGCTGCCGCCCGTAGTCTGATGTTGCTGCTGCTGCTGCCGCCGCTGCCCGCTGCC
 TCTCGAGCCGGAGACCCCTTCCACAGAAAGCCGACTCATGAACAGCTGTCTCCAGGCCAGGAGGAAGTGCCAGGCTG
 ATCCACCTGCAGTGTGCTACCAACCTGGATTCTCTGCACCTCTAGCATAAAGCACCCACTGCCCTCAGAGGAGCCT
 TCGGTCCCTGCTGACTGCTGGAGGACACAGCAACTCAGGAACAGCTCTCTGATAGGCTGCATGTGCCACCCGGCGCAT
 GAAGAACAGGTTGCCCTGGACATCTATTGGACCGTTACCGTGCCCGCAGCCTTGGTAACTATGAGCTGGATGTCT
 CCCCCATGAAGACACAGTACAGCAACCCCTGGAAATGAATCTCAGCAAACTGAACATGCTCAAAACCAGACTCAGAC
 CTCTGCCCTCAAGTTTGCCATGCTGTGTAATCTCAATGACAAGTGTACCGGCTGCGCAAGGCCCTACGGGGAGGCGTCTC
 CGGGCCCCACTGCCAGCGCACGCTGCTCAGGAGCTGCTCACTTCTTCGAGAAGGCCCGCAGCCCCACGCGCAGG
 GCCTGCTACTGTGCCCATGTGCCCCCAACGACCGGGGCTGCGGGAGCGCGGCAACACCATCGCCCCCACTGCGCG
 CTGCCGCTGTGGCCCCCAACTGCCCTGGAGCTGCGGCGCTCTGCTTCTCCGACCCGCTTTCAGAGATCACGCCCTGGTGA
 TTTCCAGACCCACTGCCATCCCATGGACATCCTAGGAACCTGTGCAACAGAGCAGTCCAGATGTCTACGAGCATACCTGG
 GGCTGATTGGGACTGCCATGACCCCAACTTGTAGCAATGTCAACACCAAGTGTGCCCTTAAGCTGCACCTGCCGAGGC
 AGTGGCAACCTGCAGGAGGAGTGTAATGCTGGAAGGTTCTTCTCCACAAACCCCTGCCCTCAGGAGGCCATTCAGC
 TAAGATGCGTTTTCACAGCCAACTCTTCTCCAGGACTGGCCACACCCCTTGTCTGTGATGGCACACCAAGATGAAA
 ACCCTGCTGTGAGGCCACAGCCCCTGGTGCCCTCTCTTTCTCCTGCACGCTTCCCTTGATTCTGCTCCTGAGCCTATGG
 TAG

FIGURE 13

CTCTGAGCTTCTCTGAGCCTTGTTTGCTCATCTGGAAAAAGGGATTAAACCATTACCTCATGGAGTTGTGAAAGAATAGCTGCAAAGCACCTAACACA
 GAGACTCGAAGAGACTCGGAACAAACGAGTAGACCTTTTCCCCTAATTGGTAAATGGAGTACCTCAACACTTCTTATCGACGTTTCGTGGATTGTGT 100

L . A S L S L V C S S G K R G L N H L P H G V V K E . L Q S T . H
 S E L L . A L F A H L E K G D . T I Y L M E L . K N S C K A P N T
 P L S F S E P C L L I W K K G I K P F T S W S C E R I A A K H L T H

TAGTAAGGTTCCCAGTGCAGCTACTTCTGCTGGGTTGAGTCTAGCTGTGTAGGCCCTTGTTTCCTCACCTGGAGAACTGGGGTGGCAGGCCGGTCCCCC
 ATCATTCCAAGGGTCACGTCGATGAAGACGACCAACTCAGATCGACACATCCGGGAACAAGGAGTGGACCTCTTGACCCACCGTCCGCCAGGGGG 200

I V R F P V Q L L L L G . V . L C R P L V P H L E K L G W Q A G P P
 . . G S Q C S Y F C W V E S S C V G P L F L T W R N W G G R P V P
 S K V P S A A T S A G L S L A V . A P C S S P G E T G V A G R S P

ACAAAGATAACTCATCTCTTAATTGCAAGCTGCCTCAACAGGAGGGTGGGGGAACAGCTCAACAATGGCTGATGGGCGCTCCTGGTGTGATAGAGAT
 TGTCTTCTATTGAGTAGAGAATTAACGTTTCGACGGAGTTGTCTCCACCCCTTGTCGAGTTGTTACCGACTACCGCGAGGACCACAACATATCTCTA 300

Q K I T H L L I C K L P Q Q E G G G T A Q Q W L M G A P G V D R D
 H K R . L I S . F A S C L N R R V G E Q L N N G . W A L L V L I E M
 T D N S S L N L Q A A S T G G W G N S S T M A D G R S W C . . R

GGAACTTGGACTTGGAGGCCTCTCCACGCTGTCCCACTGCCCTGGCCTAGGCGGCAGGTGAGTGGTTCTCCAGTGACTCCTACCTGGTACTGAGGAAA
 CCTTGAACCTGAACCTCCGAGAGGTGCGACAGGTGACGGGGACCGGATCCGCCGTCCACTACCAAGAGGGTCACTGAGGATGGACCATGACTCCTTT 400

G W T W R P L H A V P L P L A . A A G E W F S Q . L L P G T E E
 E L G L G G L S T L S H C P W P R R Q V S G S P S D S Y L V L R K
 W N L D L E A S P R C P T A P G L G G R . V V L P V T P T W Y . G K

GGCGGCTTGAAGTGGTGAAGGAGAGCAGGGCTTGGCTTGGGCAGCGGTTAGGTGTGGGAGGGAAAATGGTCAGGGAGGGACCAGGTGAATGGGAGGAGGAG
 CCGCCGAAGTGAACACTCCCTCTCGTCCCGAACCAGACCCGTGCGCAATCCACACCCTCCCTTTTACCAGTCCCTCCCTGGTCCACTTACCCTCCCTCCTC 500

R R L D W . G R A G L G L G S G . V W E G K W S G R D Q V N G R R S
 G G L T G E G E Q G L A W A A V R C G R E N G Q G G T R . M G G G
 A A . L V R E S R A W L G Q R L G V G G K M V R E G P G E W E E E

CGGGAATTCTCTGAATGGTGGTGCAGTCAAGGTGATTCCTCCCTGGGCTCCAGAGGCAGCAAACCCATTATACTGGAACCTAGGCCCTTCTGAGTTT
 GCCCTGAAGAGACTTACCAGCCAGTGAGTCCACTAAGGAGGGGACCCGAGGGTCTCCGTCGTTTGGGTAATATGACCTTGGATCCGGGAAGGACTCAAA 600

G T S L N G R C T Q V I P P L G S Q R Q Q T H Y T G T . A L P E F
 A G L L . M V G A L R . F L P W A P R G S K P I I L E P R P F L S F
 R D F S E W S V H S G D S S P G L P E A A N P L Y W N L G P S . V

CCCCTCCACACAGCTAGGAGCCCATGCCCGCCTGATCTCAGCCCGAGGACAGCCCTCCTTGAGGTCTTCTCCTCCCAAGCCCACTGGGTGCCCTCTT
 GGGGAGGTGTGTGATCCTCGGGTACGGGCCGACTAGAGTCCGGCTCCTGTGCGGGAGGAACTCCAGGAAGGAGGGGTTCGGGTGGACCCACGGGAGAA 700

P L H T A R S P C P A . S Q P E D S P S L R S F L P K P T W V P S
 P S T Q L G A H A R P D L S P R T A P P . G P S S P S P P G C P L
 S P P H S . E P M P G L I S A R G Q P L L E V L P P Q A H L G A L F

FIGURE 14A

TCTCCCTGAGGCTCCACTTGGTCTCTCCGCGCAGCCTGCCCTGTGGCCACCTGGCCGCTCTGGCTCTGCTGAGCAGCGTCGAGAGGCTCCCTGGGC
AGAGGGACTCCGAGGTGAACCAGAGAGGCGCGTCCGACGGGACACCGGGTGGGACCGGCGAGACCAGACGACTCGTCGACGCTCTCCGGAGGGACCCG 800
F S L R L H L V S P R S L P C G P P W P L W L C . A A S Q R P P W A
S P . G S T W S L R A A C P V A H P G R S G S A E Q R R R G L P G
L P E A P L G L S A Q P A L W P T L A A L A L L S S V A E A S L G
TCCGCGCCCCGAGCCCTGCCCCCGGAAGGCCCCCGCTGTCTGGCGTCCCCGCGCGCCACCTGCCGGTAGGTGAGAGGGCGAGGGGGCGGGGC
AGGCGCGGGCGTCCGGACGGGGGGCGCTTCCGGGGGGCGACAGGACCGCAGGGGGCGCGGTGGACGGCCCATCCACTCTCCCGCTCCCCGCCCCG 900
P R P A A L P P A K A P R L S W R P P P A T C R V G E R A R G R G
L R A P Q P C P P R R P P A C P G V P R R P P A G . V R G R G G G A
S A P R S P A P R E G P P P V L A S P A G H L P G R . E G E G A G
GGGCTGGCCCGGGACACCGCGCTGACTGGGTCTCATTCAGGGGGACGCACGCCCGCTGGTGCAGTGGAAGAGCCCGCGCGCCGCGCGCAGCCTT
CCCCGACCGGGCCCTGTGGCGCGCACTGACCCAGAGTAAGGTCCCCCTGCGTGCCGGGCGACCAGTACCTTCTCGGGCCCGCGGGCGGGCGTCCGAA 100
G A G P G H R A . L G L I P G G R T A R W C S G R A R R P P P Q P
G L A R D T A R D W V S F Q G D A R P A G A V E E P G G R R R S L
R G W P G T P R V T G S H S R G T H G P L V Q W K S P A A A A A A F
CTCGCGCGCGCCCCGCGCGCTGCACCCCATCTGCTCTTCCCCGCGGGGGCGCGCGCGCGGGCTGGGGGCCCCGGGCAGCCGCGCTCGGGCAGCGGG
GAGCGGGCGCGGGGGCGCGGACGTGGGGGTAGACGAGAAGGGGCGCCCCGGCGCGCGCCGACCCCCGGGCCCCGTCCGCGGAGCCCGTCCGCC 110
S P A P P P P A P P S A L P R G G R A A R A G G P G S R A R A A G
L G P R P R R L H P H L L F P A G A A R R G L G A R A A A L G Q R
S A R A P A A C T P I C S S P R G P R G A G W G P G Q P R S G S G
GGCGCGGGGCTGCCGCTGCGCTCGCAGCTGGTGCCGGTGCGCGCGCTCGGCCTGGGCCACCGCTCCGACGAGCTGGTGCGTTCCGCTTCTGCAGCGGC
CCGCGCCCCGACGGCGGACGCGAGCGTGACACCGCCACGCGCGGAGCCGGACCCGGTGGCGAGGCTGCTCGACCACGCAAGGCGAAGACGTCCGCC 120
A R G C R L R S Q L V P V R A L G L G H R S D E L V R F R F C S G
G R G A A A C A R S W C R C A R S A W A T A P T S W C V S A S A A A
G A G L P P A L A A G A G A R A R P G P P L R R A G A F P L L Q R
TCCTGCCGCGCGCGCGCTCTCCACACGACCTCAGCCTGGCCAGCCTACTGGGCGCCGGGGCCCTGCGACCGCCCCGGGCTCCCGGCCCGTCAGCCAGC
AGGACGGCGCGCGCGGAGAGGTGTGCTGGAGTCCGACCGGTCCGATGACCCGCGGGCCCCGGGACGCTGGCGGGGGCCCCAGGGCCGGGCAGTCGGTCC 130
S C R R A R S P H D L S L A S L L G A G A L R P P P G S R P V S Q
P A A A R A L H T T S A W P A Y W A P G P C D R P R A P G P S A S
L L P P R A L S T R P Q P G Q P T G R R G P A T A P G L P A R Q P A
CCTGCTGCCGACCCACGCGCTACGAAGCGGTCTCCTTCATGGACGTCAACAGCACCTGGAGAACCCTGGACCGCTCTCCGCCACCGCTGCGGCTGCCT
GGACGACGGCTGGGTGCGGATGCTTCGCCAGAGGAAGTACCTGCAGTTGTCTGGACCTCTTGGCACCTGGCGGAGAGGCGGTGGCGGACGCCGACGGA 140
P C C R P T R Y E A V S F M D V N S T W R T V D R L S A T A C G C L
P A A D P R A T K R S P S W T S T A P G E P W T A S P P P P A A A
L L P T H A L R S G L L H G R Q Q H L E N R G P P L R H R L R L P

FIGURE 14B

GGGCTGAGGGCTCGCTCCAGGGCTTTGCAGACTGGACCCTTACCGGTGGCTCTTCTGCCTGGGACCCTCCCGCAGAGTCCCACTAGCCAGCGGCCTCAG 150
CCCGACTCCCGAGCGAGGTCCCGAAACGTCTGACCTGGGAATGGCCACCGAGAAGGACGGACCCTGGGAGGGCGTCTCAGGGTGATCGGTGCGCCGGAGTC

G . G L A P G L C R L D P Y R W L F L P G T L P Q S P T S Q R P Q
W A E G S L Q G F A D W T L T G G S S C L G P S R R V P L A S G L S
G L R A R S R A L Q T G P L P V A L P A W D P P A E S H . P A A S

CCAGGGACGAAGGCCTCAAAGCTGAGAGGCCCCCTGCCGGTGGGTGATGGATATCATCCCCGAACAGGTGAAGGGACAACACTGACTAGCAGCCCCAGAGCCC 160
GGTCCCTGCTTCCGGAGTTTCGACTCTCCGGGGACGGCCACCCACTACCTATAGTAGGGGCTTGTCACCTTCCCTGTTGACTGATCGTCGGGGTCTCGGG

P G T K A S K L R G P C R W V M D I I P E Q V K G Q L T S S P R A
Q G R R P Q S . E A P A G G . W I S S P N R . R D N . L A A P E P
A R D E G L K A E R P L P V G D G Y H P R T G E G T T D . Q P Q S P

TCACCTGCGGATCCCAGCCTAAAAGACACCAGAGACCTCAGCTATGGAGCC 1652
AGTGGGACGCCTAGGGTCGGATTTCTGTGGTCTCTGGAGTCGATACCTCGG

L T L R I P A . K T P E T S A M E P
S P C G S Q P K R H Q R P Q L W S
H P A D P S L K D T R D L S Y G A

FIGURE 14C

CCGGTGAGCGCTCTCGGCCTGGGCCACAGCTCCGACGAGCTGATACGTTTCCGCTTCTGCAGCGGTTTCGTGCCGCCGAGCACGCTCCCCGCACGATCTCA 100
 GGCCACTCGCGAGAGCCGGACCCGGTGTGAGGCTGCTCGACTATGCAAAGGCGAAGACGTGCCAAGCACGGCGGCTCGTGCGAGGGGCGTGTAGAGT
 P V S A L G L G H S S D E L I R F R F C S G S C R R A R S P H D L
 GCCTGGCCAGCCTGCTGGGCGCCGGGGCCCTGCGGTGCGCTCCCGGTCCCGGCCGATCAGCCAGCCCTGTTGCCGGCCCACTCGCTATGAGGCCGTCTC 200
 CGGACCGGTGCGACGACCCGCGGCCCGGGACGCCAGCGGAGGGCCAGGGCCGGCTAGTCGGTCGGGACAACGGCCGGGTGAGCGATACTCCGGCAGAG
 S L A S L L G A G A L R S P P G S R P I S Q P C C R P T R Y E A V S
 CTTTCATGGATGTGAACAGCACCTGGAGAACCGTGGACCATCTCTCCGCCACCGCCTGCGGCTGTCTGGGCTGAGGATGATCTTCAAGCTTTTGCACACTG 300
 GAAGTACCTACACTTGTCTGGACCTCTTGGCACCTGGTAGAGAGGCGGTGGCGGACGCCGACAGACCCGACTCCTACTAGAAGTTCGAAAACGTGTGAC
 F M D V N S T W R T V D H L S A T A C G C L G . G . S S S F C T L
 GACGCATATGTCGCCCTACCTGGAACAGCCCCACGGGGCCTCACTAGCTAGGAGCCTCAACTCAACAGGAAGCTCAGGCCTCAGGCCGATGAGGGACAGA 400
 CTGGGTATACAGCGGGATGGACCTTGTGCGGGTGCCCCGGAGTGATCGATCCTCGGAGTTGAGTTGTCCTTCGAGTCCGGAGTCCGGCTACTCCCTGTCT
 D P Y V A L P G T A P R G L T S . E P Q L N R K L R P Q A D E G Q
 CAGAGCCTGGAAAGATGACCGAACCCTGACCAACAGTCCCAAGGTGTTTCATGGATCCCAGCTCTACAGACAGCAGAAACCTCAGCTA 488
 GTCTGGGACCTTTCTACTGGCTTGGTGACTGGTTGTGAGGGTCCACAAGTACCTAGGGTCGAGATGTCTGTCTGCTTTGGAGTCGAT
 T P G K M T E P L T N S P K V F M D P S S T D S R N L S Y

FIGURE 15